

Appl. No. : 10/694,509
Filed : October 27, 2003

REMARKS

This Amendment is responsive to the Office Action mailed on April 19, 2006. In the Office Action, the Examiner rejected Claims 1-42 on obviousness-type double patenting grounds over U.S. Patent No. 6,714,926; rejected Claims 1-15, 17-28, and 30-42 on anticipation grounds over U.S. Patent No. 6,330,566 to Durham ("Durham"); rejected Claim 16 on obviousness grounds over Durham in view of U.S. Patent No. 5,991,878 to McDonough, et al.; and rejected Claim 29 on obviousness grounds over Durham in view of U.S. Patent No. 5,907,847 to Goldberg.

I. Obviousness-Type Double Patenting Rejection

In response to the obviousness-type double patenting rejection, Applicant is submitting a signed Terminal Disclaimer with this response. Applicant does not imply any agreement with the Examiner's statements that certain claims of Applicant's prior patent contain "every element" of particular claims of the present application.

II. Discussion of Present Application and Durham

The present application discloses a general mechanism for allowing data structures to be encoded within browser cookies. In one embodiment, schema data is used to describe the types of data structures that are eligible for encoding within cookies. This schema data can be generated whenever a new data structure is identified by programmers to include in cookies, and can be added to an existing set of schema data without affecting data describing other encoded data structures. Because the schema data specifies the types of data structures that are to be encoded within cookies at a given point of time, the task of encoding data structures within cookies, and the task of later decoding these cookies, can be performed by executable components that are not specific to any particular type of data structure or set of data structures. Thus, programmers can encode data structures of various types within cookies, without the need to write special code to handle each new type of data structure. For example, a programmer can encode a new type of data structure within a cookie without the need to write special software to break apart and translate that data structure to a cookie-compatible format, and without the need to write special software for regenerating that data structure from received browser cookies.

In contrast, Durham teaches including specific pieces of preference data one-by-one within cookies, with the type of encoding used varying from one piece of data to another. No

attempt is made to encode entire data structures within the cookies. This can be seen in the discussion of the encoding process at Figure 5 and column 10, line 12 to column 15, line 44, as well as the cookie example in Figure 4. In addition, rather than using schema data, Durham apparently specifies the encoding and decoding formats within the software that handles the encoding and decoding tasks. (See Appendix A of Durham, which demonstrates such a "hard-coded" implementation.) As a result, a programmer wishing to encode preference data in cookies according to Durham's approach would apparently have to change the encoding and decoding software—or write new software—for each new piece of data to be included.

III. Anticipation Rejection of Claims 1-15, 17-28, and 30-42

For the reasons set forth below, Applicant respectfully submits that the anticipation rejections of Claims 1-15, 17-28 and 30-42 over Durham are improper. Each independent claim is discussed separately below.

Independent Claim 1

Applicant respectfully submits that the anticipation rejection of Claim 1 is improper because, among other reasons, Durham does not disclose "schema data stored in the memory of the server, said schema data specifying past and present schemas used to encode data structures into cookies stored on user computers." In connection with these limitations, the Examiner points to column 9, line 33 through column 10, line 59 and Figure 5 of Durham. Nothing in this or any other portion of Durham, however, discloses the encoding of data structures into cookies, or the use of schema data to do so. To the contrary, the process disclosed in Durham involves incorporating individual elements of data in a cookie, without regard to the broader structures (if any) from which these data elements are obtained. These data elements represent specific user preferences, and are not "data structures."

In addition, in Durham's system, the data elements are apparently incorporated into the cookie using a hard-coded format, rather than using schema data as described in Claim 1. The disclosure of a "version number" at column 10, lines 12-16 of Durham does not suggest otherwise. At most, this version number would apparently enable the web server to detect that the user's preferences were encoded in the received cookie using a different hard-coded format than that currently being used.

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Durham also fails to disclose “a conversion component executed by the server, said conversion component configured to use the schema data to identify and decode the data structures encoded within cookies received from user computers to generate temporary data structures within the memory of the server.” In connection with this claim language, the Examiner points to column 9, line 65 through column 10, line 11 of Durham. The only portion of this excerpt that involves the decoding of a received cookie is the following sentence: “Code within the response page (an ASP file) disassembles the cookie and uses its contents to generate the page according to user preferences stored in the cookie.” Nothing in this sentence suggests that Durham’s ASP file uses schema data to identify and decode data structures encoded in cookies, or that the cookie decoding process involves the generation of “temporary data structures.”

For these reasons, Applicant respectfully submits that the anticipation rejection of Claim 1 is improper.

Independent Claim 18

Unlike Claim 1, Claim 18 does not require the use of schema data.

Applicant respectfully submits that the anticipation rejection of Claim 18 is improper because, among other reasons, Durham does not disclose “receiving, at a server, cookie data that has a data structure encoded therein.” As discussed above, although the cookies received by Durham’s system include data elements representing user preferences, nothing in Durham suggests that the cookies include encoded data structures.

The anticipation rejection of Claim 18 is also improper because Durham does not disclose “determining whether the data structure encoded within the cookie is valid.” In connection with this claim language, Claim 18 has been amended to state that “the validity of the data structure is determined using information that identifies types of encoded data structures that are currently valid.” Durham does not disclose or suggest this, or any other, method of determining whether an encoded data structure is valid.

For these reasons, Applicant respectfully submits that Claim 18 is patentably distinct from Durham.

Independent Claim 28

Applicant respectfully submits that the anticipation rejection of Claim 28 is improper because, among other reasons, Durham does not disclose "identifying a set of data structures to be encoded within the cookie data." In connection with this claim language, the Examiner points to column 7, lines 21-50 of Durham. This portion of Durham indicates that the preferences specified by a user are both written to a database and incorporated into a cookie. Nothing in this or any other portion of Durham, however, teaches "identifying a set of data structures to be encoded within the cookie data" as claimed.

The anticipation rejection of Claim 28 is also improper because Durham does not disclose "encoding the set of data structures within the cookie data according to schema data stored within a computer memory, said schema data specifying how the set of data structures is to be encoded within the cookie data." As mentioned above, Durham's encoding method is apparently hard-coded within executable code, and not specified by schema data as claimed. In addition, Durham does not encode a set of data structures in the cookie data as claimed.

For these reasons, Applicant respectfully submits that Claim 28 is patentably distinct from Durham.

Independent Claim 39

Applicant respectfully submits that the anticipation rejection of Claim 39 is improper because, among other reasons, Durham does not disclose "storing schema data on at least one server computer of a web site system, such schema data specifying schemas used by executable software to (a) encode data structures within cookies for storage on user computers, and (b) decode said cookies to extract the data structures when the cookies are returned by the user computers." As discussed during the interview, Durham's encoding process does not involve the use of schema data as described in this portion of Claim 39.

The rejection of Claim 39 is also improper because Durham does not disclose "modifying the schema data over time to add data structures to, and remove data structures from, a set of data structures encoded within cookies encoded within cookies by the executable software." In connection with this claim language, the Examiner points to column 7, lines 21-50 of Durham. This portion of Durham, however, says nothing about modifying schema data.

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For these reasons, Applicant respectfully submits that Claim 39 is patentably distinct from Durham.

Claims 2-15, 17, 19-27, 30-38 and 40-42

The anticipation rejections of Claims 2-15, 17, 19-27, 30-38 and 40-42 are improper because each of these claims depends from one of the independent claims discussed above. In addition, at least some of these dependent claims recite limitations that provide additional distinctions over Durham. For example, with respect to Claim 5, Durham does not disclose "schema data [that] includes, for a given data structure that is encoded within cookies, an identification of primitive fields of the given data structure and datatypes of said primitive fields." As another example, with respect to Claim 10, Durham does not disclose a conversion component that "uses the schema data to determine whether a particular data structure that is encoded within a received cookie is to be decoded for use."

IV. Obviousness Rejections of Claims 16 and 29

Claim 16 depends from Claim 1. Applicant respectfully submits that the obviousness rejection of Claim 16 over Durham in view of McDonough et al. is improper because, among other reasons, Durham and McDonough et al. do not teach or suggest all of the limitations of Claim 1. For example, Durham and McDonough et al. do not teach or suggest "schema data stored in the memory of the server, said schema data specifying past and present schemas used to encode data structures into cookies stored on user computers."

Claim 29 depends from independent Claim 28. Applicant respectfully submits that the obviousness rejection of Claim 29 over Durham in view of Goldberg is improper because, among other reasons, Durham and Goldberg do not teach or suggest all of the limitations of Claim 28. For example, Durham and Goldberg do not teach or suggest "identifying a set of data structures to be encoded within the cookie data," or "encoding the set of data structures within the cookie data according to schema data."

V. Conclusion

In view of the foregoing amendments and remarks and the Terminal Disclaimer submitted with this response, Applicant requests that the Examiner withdraw all outstanding rejections.

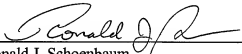
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If any issues remain that can potentially be resolved by telephone, the Examiner is invited to call the undersigned attorney of record at his direct dial number of 949.721.2950.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By: 
Ronald J. Schoenbaum
Registration No. 38,297
Attorney of Record
Customer No. 20,995
(949) 721-2950

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